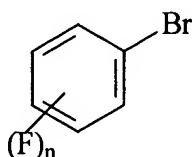


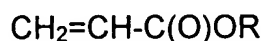
## LISTING OF CLAIMS

This listing of claims replaces, without prejudice, all previous listings and versions of the claims.

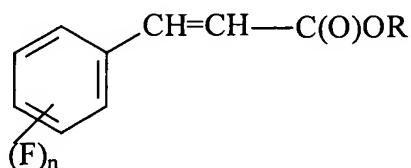
1. (Currently Amended) A process for the production of a compound comprising:  
reacting, at a temperature of 120°C or more, a bromobenzene reactant of the formula:



with an alkyl acrylate of the formula:



in an organic polar solvent and in the presence of a palladium catalyst for a Heck reaction, a base, and a phase-transfer catalyst, to produce an alkyl cinnamate ester compound having the formula:



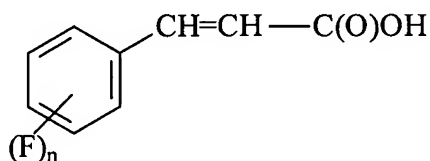
wherein n is an integer of from 0 to 5, and R is an alkyl group, and the palladium catalyst is employed in an amount of from about 0.008 to about 0.02 mol % per mol of bromobenzene reactant and the phase-transfer catalyst is employed in an amount of about 0.05 to about 0.1 equivalent per mol of bromobenzene reactant.

2. (Original) A process according to claim 1, wherein the palladium catalyst is a substantially phosphane-free palladium catalyst.
3. (Canceled)
4. (Currently amended) A process according to claim 1, wherein ~~n is an integer of from 1 to 5~~ and R is an alkyl group of from 3 to 8 carbon atoms.
5. (Original) A process according to claim 4, wherein n is an integer of 2 and R is a butyl group.
6. (Currently amended) A process according to claim 1, wherein the palladium catalyst is employed in an amount of from about 0.008 to about ~~2~~ 0.01 mol% per mol of bromobenzene reactant.
7. (Currently amended) A process according to claim ~~6~~ 1, wherein the palladium catalyst is employed in an amount of from about 0.01 to about 0.02 mol% per mol of bromobenzene reactant.
8. (Currently amended) A process according to claim 1 wherein the organic polar solvent is selected from the group consisting of N-methyl pyrrolidinone, dimethylformamide and dimethylacetamide ~~the phase transfer catalyst is employed in an amount of from about 0.05 to about 5.0 equivalents per mol of bromobenzene reactant.~~
9. (Currently amended) A process according to claim 8, wherein the organic polar solvent is N-methyl pyrrolidinone ~~phase transfer catalyst is employed in an amount of from about 0.1 to about 1.0 equivalent per mol of bromobenzene reactant.~~

10. (Currently amended) A process according to claim 9 1, wherein the phase-transfer catalyst is employed in an amount of about 0.1 equivalent per mol of bromobenzene reactant.
11. (Original) A process according to claim 1, wherein the palladium catalyst is selected from the group consisting of  $\text{Pd}(\text{OAc})_2$ ,  $\text{Pd}(\text{Cl})_2$ ,  $\text{Pd}(\text{PPh}_3)_4$ ,  $(\text{PdCl}_2(\text{PhCN})_2)$ ,  $\text{Pd}(\text{dba})_2$ , and Pd on carbon.
12. (Original) A process according to claim 11, wherein the phase-transfer catalyst is a tetraalkylammonium salt.
13. (Original) A process according to claim 2 wherein the palladium catalyst is selected from the group consisting of  $\text{Pd}(\text{OAc})_2$ ,  $\text{Pd}(\text{Cl})_2$ ,  $\text{Pd}(\text{PPh}_3)_4$ ,  $(\text{PdCl}_2(\text{PhCN})_2)$ ,  $\text{Pd}(\text{dba})_2$  and Pd on carbon.
14. (Original) A process according to claim 13, wherein the phase-transfer catalyst is a tetraalkylammonium salt, and the bromobenzene reactant is 1-bromo-3,4-difluorobenzene.
15. (Currently amended) A process according to claim 1, wherein the bromobenzene reactant is 1-bromo-3,4-difluorobenzene, the alkyl acrylate reactant is butyl acrylate, the palladium catalyst is  $\text{Pd}(\text{OAc})_2$ , the phase-transfer catalyst is tetrabutylammonium bromide, the base is triethylamine, the reaction is conducted at a temperature in the range of from about 130°C to about 140°C, the palladium catalyst is employed in an amount of from about 0.01 mol% to about ~~0.5~~ 0.02 mol% per mole of bromobenzene reactant; the phase-transfer catalyst is employed in an amount of ~~from about 0.1 to about 1~~ equivalent per mole of bromobenzene reactant, and the butyl acrylate reactant is employed in an amount of from about 1.0 to about 1.05 equivalent per mole of bromobenzene

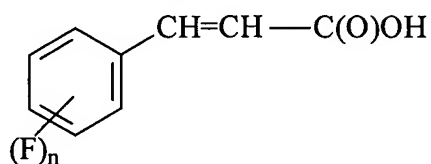
reactant.

16. (Original) A process according to claim 1 wherein the yield of alkyl cinnamate ester is >94%.
17. (Currently amended) A process according to claim 4 10, wherein the palladium catalyst is a phosphane-free palladium catalyst ~~and the palladium catalyst is employed in an amount of from about 0.008 to about 5 moles per mole of bromobenzene reactant, and the phase transfer catalyst is employed in an amount of from about .05 to about 5 equivalents per mole of bromobenzene reactant.~~
18. (Currently amended) A process according to claim 17, wherein ~~n is an integer of from 1 to 5~~ and R is an alkyl group of from 3 to 8 carbon atoms.
19. A process according to claim 18, wherein the ~~reaction is conducted in the presence of an organic polar solvent is selected from the group consisting of N-methyl pyrrolidinone, dimethylformamide and dimethylacetamide.~~
20. (Canceled)
21. (Canceled)
22. (Currently amended) A process according to claim 1, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



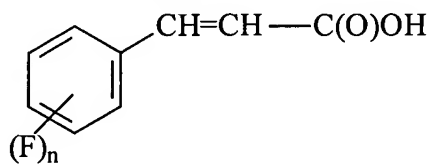
wherein n is an integer of from 0 1 to 5.

23. (Currently amended) A process according to claim 2, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



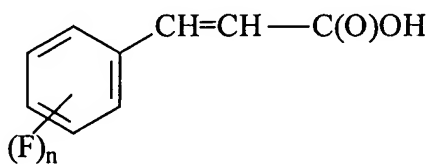
wherein n is an integer of from 0 1 to 5.

24. (Currently amended) A process according to claim 3 7, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



wherein n is an integer of from 0 1 to 5.

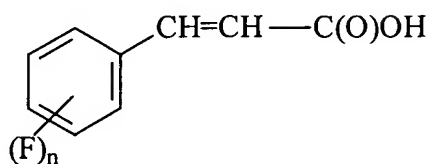
25. (Original) A process according to claim 4, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



wherein n is an integer of from 1 to 5.

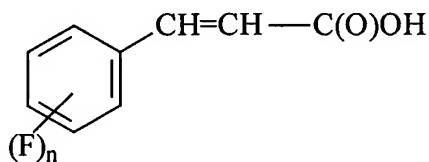
26. (Currently amended) A process according to claim 6, further comprising

hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



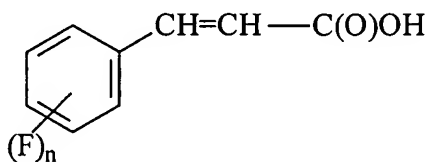
wherein n is an integer of from 0 to 5.

27. (Currently amended) A process according to claim 8, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



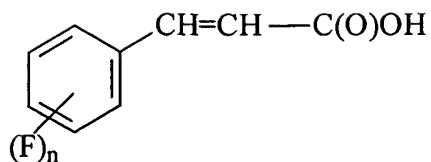
wherein n is an integer of from 0 to 5.

28. (Currently amended) A process according to claim 11, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



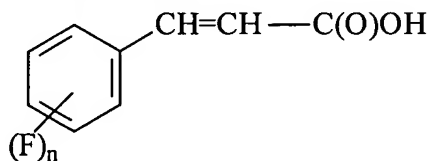
wherein n is an integer of from 0 to 5.

29. (Original) A process according to claim 15, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



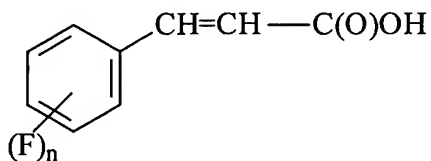
wherein n is the integer of 2.

30. (Currently amended) A process according to claim 17, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



wherein n is an integer of from 0 1 to 5.

31. (Currently amended) A process according to claim ~~20~~ 10, further comprising hydrolyzing the alkyl cinnamate compound under basic or acidic conditions to produce a cinnamic acid of the formula:



wherein n is the integer 2.

32. (Original) A process according to claim 31, wherein the yield of cinnamic acid is about 90% or more.